I CLAIM:

1. A method of forming a drug eluting stent, the method comprising:

coupling a stent framework to a mandrel;

inserting the mandrel with stent framework into an open die set, the die set including a forming surface including a plurality of raised indention forming portions;

closing the die set against the stent framework;

pressing the raised indention portions into the stent framework to form indentions in the stent framework; and

inserting at least one drug polymer into the indentions formed in the stent framework.

2. The method of claim 1 further comprising:

reopening the die set and repositioning the stent framework within the reopened die set, reclosing the die set and pressing the raised indention forming portions into the stent framework.

3. The method of claim 2 wherein the repositioning comprises rotating the mandrel with stent within the reopened die set.

4. The method of claim 1 further comprising:

reopening the die set;

rotating the die set in relation to the stent on the mandrel; and

reclosing the die set to press the raised indention portions into a different position on the stent framework.

5. The method of claim 1 further comprising:
coupling a collar to the mandrel adjacent one end of the stent framework.

6. The method of claim 1 wherein the raised indention forming portions are formed by a process selected from the group consisting of: welding, photo chemical etching, lithography, bead blasting and electrodeposition.

7. The method of claim 1 wherein inserting at least one drug polymer into the indentions comprises applying a drug polymer solution onto the stent and curing the stent to form a drug polymer coating.

8. The method of claim 7 further comprising:
applying a polymer solution to the drug polymer coated stent; and
curing the stent to form a polymer cap coating.

9. The method of claim 7 wherein the drug polymer solution contains at least one therapeutic agent.

10 The method of claim 9 wherein the therapeutic agent is selected from the group consisting of an antisense agent, an antineoplastic agent, an antiproliferative agent, an antithrombogenic agent, an anticoagulant, an antiplatelet agent, an antibiotic, an anti-inflammatory agent, a therapeutic peptide, a gene therapy agent, a therapeutic substance, an organic drug, a pharmaceutical compound, a recombinant DNA product, a recombinant RNA product, a collagen, a collagenic derivative, a protein, a protein analog, a saccharide, a saccharide derivative, and a combination thereof.

11. The stent of claim 8 wherein the cap coating comprises a polymer selected from the group consisting of a silicone-urethane copolymer, a polyurethane, a phenoxy, ethylene vinyl acetate, polycaprolactone, poly(lactide-co-glycolide), polylactide, polysulfone, elastin, fibrin, collagen, chondroitin sulfate, a biocompatible polymer, a biostable polymer, a biodegradable polymer, and a combination thereof.

12. An apparatus for forming a drug eluting stent, the apparatus comprising:

a mandrel;

a die set including at least two portions, the at least two portions defining a channel formed through the die set for receiving the mandrel; and

a plurality of indentation forming portions coupled to a portion of the surface of the channel.

13. The apparatus of claim 12 further comprising:

a stent positioned on the mandrel, the stent comprising a stent framework having a plurality of struts and a plurality of crown portions.

14 The apparatus of claim 13 wherein the stent framework base comprises a material selected from the group consisting of stainless steel, nitinol, tantalum, MP35N alloy, platinum, titanium, a suitable biocompatible alloy, a suitable biocompatible polymer, and a combination thereof.

15. The apparatus of claim 12 further comprising:

a collar disposed about the mandrel, the collar portion positioned to prevent the stent from sliding off of the mandrel when the mandrel and stent are inserted in to the die set.